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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 10/567,050
Filing Date: February 02, 2006
Appellant(s): BEAZLEY, TODD MARTIN

Todd Martin B
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed July 19, 2007 appealing from the Office action mailed 10/05/2007.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Finals

No amendment after final has been filed.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

6,973,218	ALDERSON et al.,	25-2001
6,697,534	TAN et al.,	6 - 1999
5,949,916	CHUN	6-1999

(9) Grounds of Rejection

The following ground(s) of rejections are applicable to the appealed claims:

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1 - 3 are rejected under 35 U.S.C. 102(e) as being anticipated by Alderson et al., (US. 6,973,218 B2).

As to claim 1, Alderson discloses a method use in removing noise from image data (abstract), the method comprising:

receiving image data representing an image (fig 4, element 404, and fig 5, element 504, acquiring frame of image data, column 6, lines 60- 67,column 7, lines 1- 7, column 10, lines 10- 39);

filtering the received image data to remove noise therefrom and to provide filtered image data (fig 5, element 516 filtering the noise).

displaying where the filtering is being performed on the received image data (fig 5, element 518 corresponds to display image, as filtering is being done).

As to claim 2, Alderson discloses the method further comprising the step of displaying the filtered image data (fig 5, element 516 and 518).

As to claim 3, Alderson discloses the method further comprising the step of compressing the filtered image data to provide compressed filtered (fig 5, element 512) image data (column 1, lines 63- 67, column 2, lines 1-2, column 10, lines 10- 39).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 4 -6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Alderson et al., (US. 6,973,218 B2), as applied to claims 1-3 above and further in view of Tan et al., (US.6, 697, 534 B1).

Regarding claim 4 Alderson discloses dynamic range compression. Alderson is silent about specifics details of transmitting the compressed filtered image data to an endpoint.

Tan discloses a sharpening an image and, more particularly, to adaptively sharpening local image content of an image. The system comprises of:

the step of transmitting the compressed filtered image data to an endpoint (column 4, lines 46- 67, column 5, lines 1-67, column 6, lines 1-20).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Alderson to include the step of transmitting the compressed filtered image data to an endpoint. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Alderson by the teaching of Tan in order to provide a method of sharpening an image includes the following. A crispening parameter is adaptively computed for a local region of a captured image based, at least in part, on a measure of the local contrast and the local brightness (as suggested by Tan at column 1, lines 40-44).

As to claim 5, Tan discloses the method further comprising the step of, in response to the displaying step, adjusting filter parameters used in the filtering step (column 4, lines 46- 67).

As to claim 6, Tan discloses the method further comprising the step of storing the adjusted filter parameters for future reference in filtering the image data (column 4, lines 46- 67, column 5, lines 37- 42, 64-67, column 6, lines 1-20).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 7, 9, 10, 23 and 24, are rejected under 35 U.S.C. 103(a) as being unpatentable over Alderson et al., (US. 6,973,218 B2), view of Tan et al., (US.6, 697, 534 B1), as applied to the claims 1- 6 above and further in view of Chun (US. 5,949,916).

Regarding claims 7 and 9 Alderson discloses dynamic range compression. Alderson is silent about specifics details of Lee filters.

Chun discloses an automatic regressive (AR) filter and a filtering method thereof, and particularly, to an AR filter which functions as an adaptive filter in a still region of an image and outputs an observed signal unaltered in a moving region of the image in order to remove a blurring phenomenon at the edge of a moving target in that image.

The system comprises of: the method wherein the filtering is performed in accordance with a Lee filter (column 1, lines 33- 35).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Alderson to include Lee filter. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Alderson by the teaching of Chun in order to provide high performance noise removal. Also, the edge of the moving target of the moving picture can be preserved well (as suggested by Chun at column 8, lines 5 - 8).

As to claim 10, Chun discloses the method, wherein the control signal is a smoothing to control signal of the Lee filter (column 1, lines 33-35).

As to claim 23, Chun discloses the apparatus further comprising a multiplexer coupled to the filter, video converter and the display, wherein the multiplexer is responsive to a mode control signal for coupling either the filtered image data or the video signal to the display (column 7, lines 41-67, column 8, lines 1-8).

As to claim 24, Chun discloses the apparatus wherein the filter is a Lee filter and the control signal is a measure of a local variance of at least a portion of the image data (column 1, 27- 35, column 2, lines 41- 48, column 4, lines 46- 58).

4. Claims 8, 11- 22 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Alderson et al., (US. 6,973,218 B2), as applied to claims 1-6, 7, 9,10, 23, 24 and 25 above and further in view of Tan et al., (US.6, 697, 534 B1).

As to claim 8 Alderson discloses a method for use in processing image data, the method comprising:

filtering image data to provide filtered image data (fig 4, element 404, and fig 5, element 504, acquiring frame of image data, column 6, lines 60- 67,column 7, lines 1- 7, column 10, lines 10- 39);

displaying an image representative of the video signal displaying where the filtering is being performed on the received (fig 5, 516 filtering the noise) image data (fig 5, element 518 corresponds to display image, as filtering is being done).

wherein the displayed image indicates where the image data is being filtered (fig 5, element 518 corresponds to display image, as filtering is being done).

Alderson is silent converting a control signal used in the filtering to a video signal.

Tan discloses a sharpening an image and, more particularly, to adaptively sharpening local image content of an image. The system comprises of:

converting a control signal used in the filtering to a video signal (fig 4, column 9, lines 47- 67, column 10, lines 1-16).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Alderson to include converting a control signal used in the filtering to a video signal. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Alderson by the teaching of Tan in order to provide a method of sharpening an image includes the following. A crispening parameter is adaptively computed for a local region of a captured image based, at least in part, on a measure of the local contrast and the local brightness (as suggested by Tan at column 1, lines 40-44).

As to claim 11, Tan discloses the method wherein the converting step converts the control signal to a monochrome video signal (fig 4, element 430, column 8, lines 7-67).

As to claim 12, Tan discloses the method wherein the converting step converts the control signal to a monochrome video signal (fig 4, element 430, column 8, lines 7-67).

As to claim 13, Tan discloses the method wherein the image is a black and white representation of edge activity in the filtered image data (fig 6, column 2, lines 62- 67, column 3, lines 1- 42).

As to claim 14, Tan discloses the method wherein the control signal represents a statistical function (fig 6, column 8, lines 7-50, column 9, lines 14-67, column 10, lines 1-19).

As to claim 15, Tan discloses wherein the statistical function is a local variance of at least a portion of the image data (fig 6, column 8, lines 7-50, column 9, lines 14-67, column 10, lines 1-19).

As to claim 16, Tan discloses the method, wherein the portion is a group of pixels of the image data (fig 4, column 9, lines 14- 67).

As to claim 18, Tan discloses the method wherein the adjusting step compares an average brightness level of the displayed image to a predefined average brightness level (column 8, lines 7-50).

As to claim 20, Tan discloses the server wherein the display also shows the filtered image data (column 5, lines 16- 46).

As to claim 17, see the rejection of claim 1 and 8.

As to claim 19, see the rejection of claim 1 and 8.

As to claim 21, see the rejection of claim 1 and 8.

As to claim 22, see the rejection of claim 1 and 8.

As to claim 25, see the rejection of claim 1 and 8.

(10) Response to Argument

Rebuttal of Arguments Concerning 35 USC § 102

As to independent claims 1 - 3, Appellant argues "displaying where the filtering is being performed on the received image data".

In response, the examiner disagrees Alderson discloses in fig 5 block 504 for acquiring frame of image data; see also column 7, lines 39- 40, see fig 5, block 516 filtering the noise in the acquired image data or filtering the noise in the received image data, in fig 5 block 518 the filtered image data frame is displayed see column 10, lines 37- 39). Furthermore, Alderson reference(see column 10, lines 18- 31) talks about the imaging system having a blur spot in the gathered image data connected by one pixel in which highly correlated image information corresponding to neighboring pixels by applying average filter to the frame data for which noise filtered is desired which can also reduce the perceived resolution of the corresponding image and can greatly enhance the aesthetic quality of the image by substantially removing noise as well as resolution in the image data which correspond "to where the filtering is being performed

on the received image and then displayed on the display which is the resultant filter image". Moreover as indicated in fig 5 block 520 which is a "continue" loop or the process can be repeated interactively on successive frames of image data as desired (see column 10, lines 18-31, 37- 44).

As to claim 8, Appellant argues "displaying where the filtering is being performed".

In response to claim 8 see the argument presented above in claim 1 is applicable to claim 8. Furthermore, Appellant argues that Tan is not teaching about the "converting a control signal used in filtering". Examiner disagrees because Tan is teaching this limitation at (note, filtering process kernel is used on image data based on the lambda values are adjusted to control or adjust the sharpness of the resulting image see column 2, lines 62- 67, column 3, lines 1- 2, fig 4, column 9, lines 47- 67, column 10, lines 1-6).

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

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